



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
G. Barrie Kitto
Daniel C. Hirshhora

Serial No.: 10/790,291

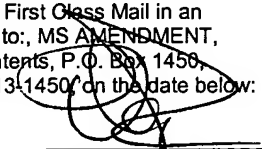
Filed: March 1, 2004

For: ANIMAL IMMUNOCONTRACEPTIVES
EXPRESSED IN PLANTS AND USES
THEREOF

Group Art Unit: 1638

Examiner: Unknown

Atty. Dkt. No.: CLFR:232US

CERTIFICATE OF MAILING 37 C.F.R 1.8	
I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail in an envelope addressed to: MS AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date below:	
May 27, 2005	
Date	David L. Parker

INFORMATION DISCLOSURE STATEMENT

MS AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 be considered by the Examiner and made of record. Copies of the listed documents required by 37 C.F.R. § 1.98(a)(2) are enclosed for the convenience of the Examiner. Copies of cited U.S. patents, U. S. patent application publications and co-pending U.S. patent applications have not been enclosed subject to the waiver regarding the requirement

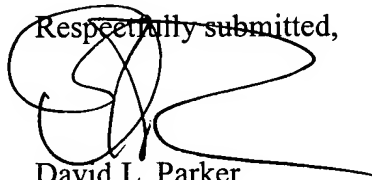
under 37 C.F.R. §1.98(a)(2)(i) stated in the Official Gazette Notice dated August 5, 2003 regarding patent applications filed on or after June 30, 2003.

In accordance with 37 C.F.R. §§ 1.97(g), (h), this Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

The present Information Disclosure Statement is being filed prior to the receipt of a first Official Action reflecting an examination on the merits, and hence is believed to be timely filed in accordance with 37 C.F.R. § 1.97(b). No fees are believed to be due in connection with the filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to these materials, the Commissioner is authorized to deduct the appropriate fees from Fulbright & Jaworski Deposit Account No.: 50-1212/CLFR:232US.

Applicants respectfully request that the listed documents be made of record in the present case.

Respectfully submitted,

A handwritten signature in black ink, appearing to be "D. L. Parker", written over the typed name.

David L. Parker
Reg. No. 32,165
Attorney for Applicants

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Date: May 27, 2005

Form PTO-1449 (modified)

Atty. Docket No.

CLFR:232US

Serial No.

10/790,291

List of Patents and Publications for Applicant's

Applicant

G. Barrie Kitto

Daniel C. Hirshhora

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Filing Date:

March 1, 2004

Group:

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U.S. Patent Documents

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Foreign Patent Documents

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Other Art

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U.S. Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.
	A1	2004/0088765	5/06/04	Kitto <i>et al.</i>	800	288	9/19/02
	A2	10/789,729		Kitto <i>et al.</i>			2/27/04
	A3	4,290,944	9/22/81	Goldberg	260	112.5R	7/31/80
	A4	5,480,799	1/02/99	O'Rand <i>et al.</i>	435	252.3	12/10/93
	A5	5,656,488	8/12/97	Curtiss, III <i>et al.</i>	435	252.33	4/01/94

Foreign Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

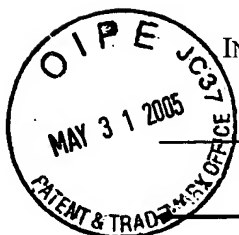
Exam. Init.	Ref. Des.	Citation
	C1	Arakawa <i>et al.</i> , "Efficacy of a food plant-based oral cholera toxin B subunit vaccine," <i>Nature Biotechnol.</i> , 16:292-297, 1998.
	C2	Bona and Bot, <i>Genetic Immunization</i> , Kluwer Academic/Plenum Publisher, New York, NY, 2000.
	C3	Bradley <i>et al.</i> , "A bait-delivered immunocontraceptive vaccine for the European red fox (<i>Vulpes</i>) by the year 2002?" <i>Reprod Fertil Dev</i> , 9:111-116, 1997.
	C4	Darji <i>et al.</i> , "Oral delivery of DNA vaccines using attenuated <i>Salmonella typhimurium</i> as carrier," <i>FEMS Immunol Med Microbiol</i> , 27:341-349, 2000.
	C5	Darji <i>et al.</i> , "Oral somatic transgene vaccination using attenuated <i>S. typhimurium</i> ," <i>Cell</i> , 91:765-775, 1997.
	C6	Diekman <i>et al.</i> , "Sperm antigens and their use in the development of an immunocontraceptive," <i>Am J Reprod Immunol</i> , 37:111-117, 1997.

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DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.



Form PTO-1449 (modified)	Atty. Docket No. CLFR:232US	Serial No. 10/790,291
List of Patents and Publications for Applicant's INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	Applicant G. Barrie Kitto Daniel C. Hirshhora	
	Filing Date: March 1, 2004	Group: 1638
U.S. Patent Documents See Page 1	Foreign Patent Documents See Page 1	Other Art See Page 1

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C7	Goldberg <i>et al.</i> , "Control of fertilization by immunization with peptide fragments of sperm specific LDH-C4," <i>Adv Exp Med Biol.</i> , 207:395-406, 1986.
	C8	Goldberg <i>et al.</i> , "Reduction of fertility in female baboons immunized with lactate dehydrogenase-C4," <i>Fertil Steril</i> , 35:214, 1981.
	C9	Goldberg, "Human LDH-C peptide as an immunocontraceptive preparation for phase I clinical trials," <i>Am J Reprod Immunol.</i> , 40:250-251, 1998 (Abstract)
	C10	Goldberg, "Infertility on female rabbits immunized with lactate dehydrogenase-X," <i>Science</i> , 181:458, 1973.
	C11	Goldberg, "Lactate dehydrogenase C4 as an immunocontraceptive model," in <i>Gamete Interaction: Prospects for immunocontraception</i> , Wiley-Liss, Inc., pp. 63-73, 1990.
	C12	Gupta, "LDH-C4: a unique target of mammalian spermatozoa," <i>Crit Rev Biochem Mol Biol.</i> , 34:361-385, 1999.
	C13	Hogrefe <i>et al.</i> , "Characterization of the antigenic sites on the refined 3-A resolution structure of mouse testicular lactate dehydrogenase C4," <i>J. Biol. Chem.</i> , 262:13155-13162, 1987.
	C14	Kamumaya <i>et al.</i> , "Design and immunological properties of topographic immunogenic determinants of a protein antigen (LDH-C4) as vaccines," <i>J. Biol. Chem.</i> , 267:6338-6346, 1992.
	C15	Lerum and Goldberg, "Immunological impairment of pregnancy in mice by lactate dehydrogenase-X," <i>Biol Reprod</i> , 11:108, 1974.
	C16	Mason <i>et al.</i> , "Expression of Norwalk virus capsid protein in transgenic tobacco and potato and its oral immunogenicity in mice," <i>Proc. Natl. Acad. Sci. USA</i> , 93:5335-5340, 1996.
	C17	O'Hern <i>et al.</i> , "Colinear synthesis of an antigen-specific B-cell epitope with a 'promiscuous' tetanus toxin T-cell epitope: a synthetic peptide immunocontraceptive," <i>Vaccine</i> , 16:1761-1766, 1997.
	C18	O'Hern <i>et al.</i> , "Reversible contraception in female baboons immunized with a synthetic epitope of sperm-specific lactate dehydrogenase," <i>Biol. Reprod.</i> , 52:331-339, 1995.

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